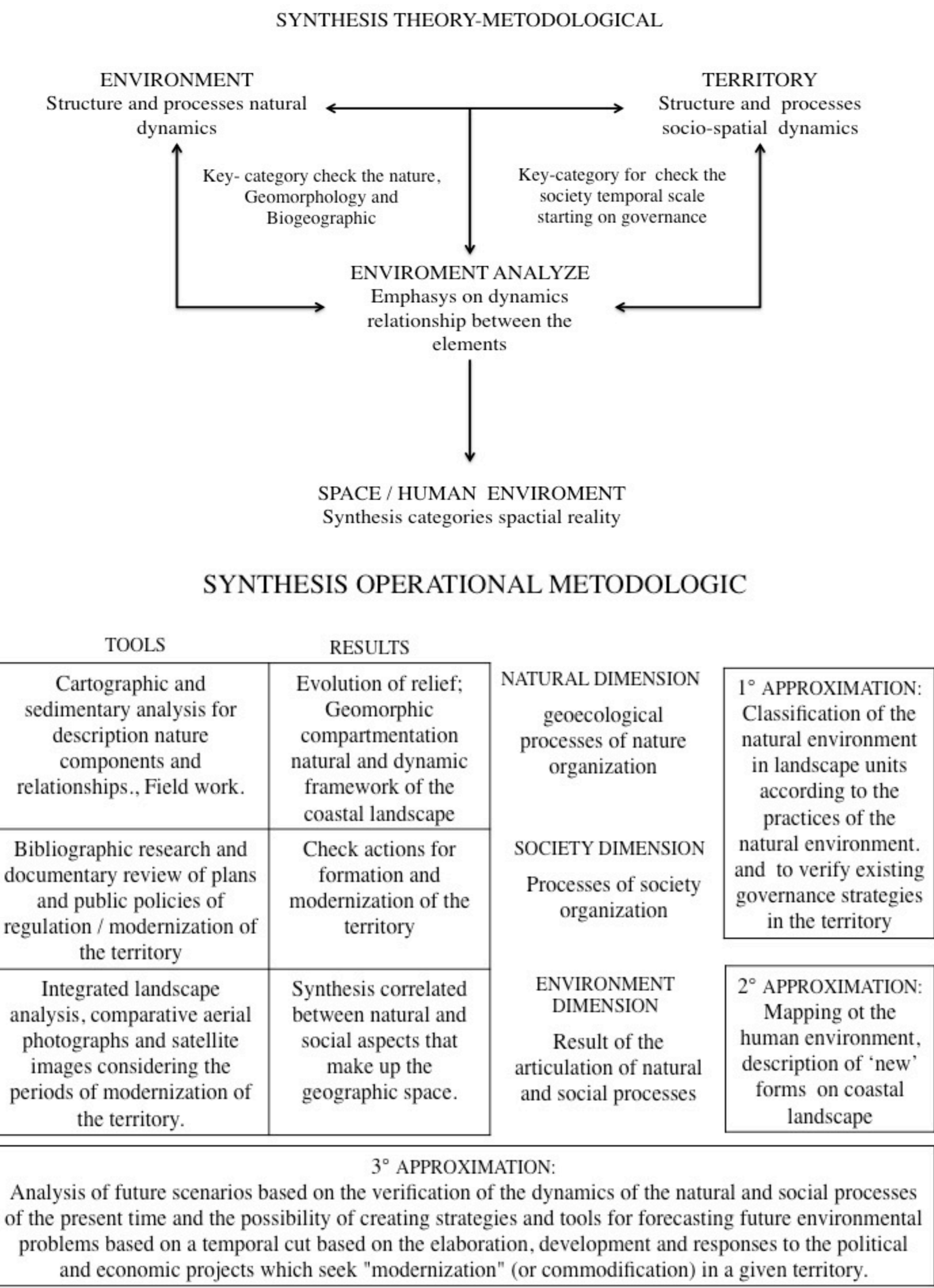
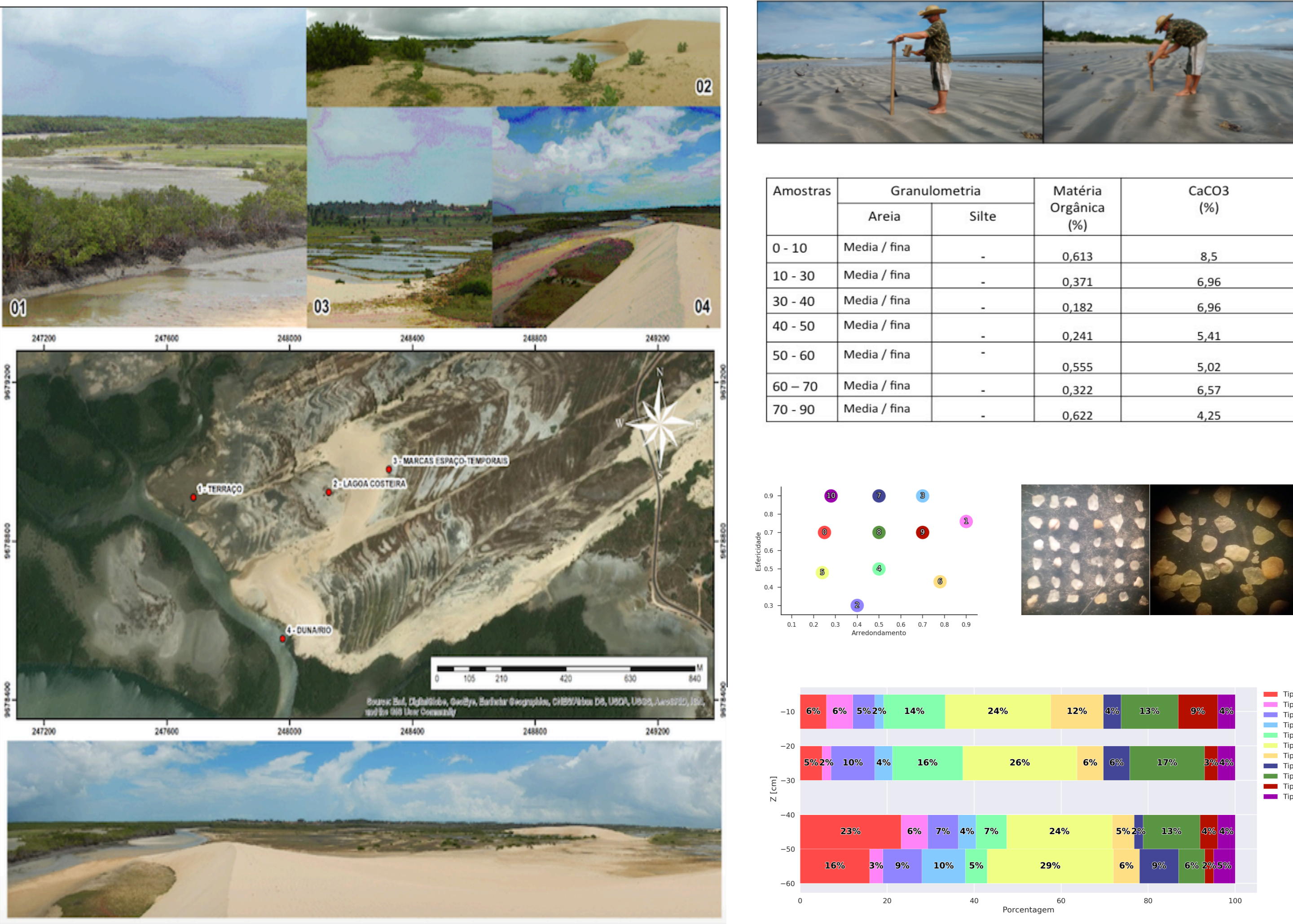
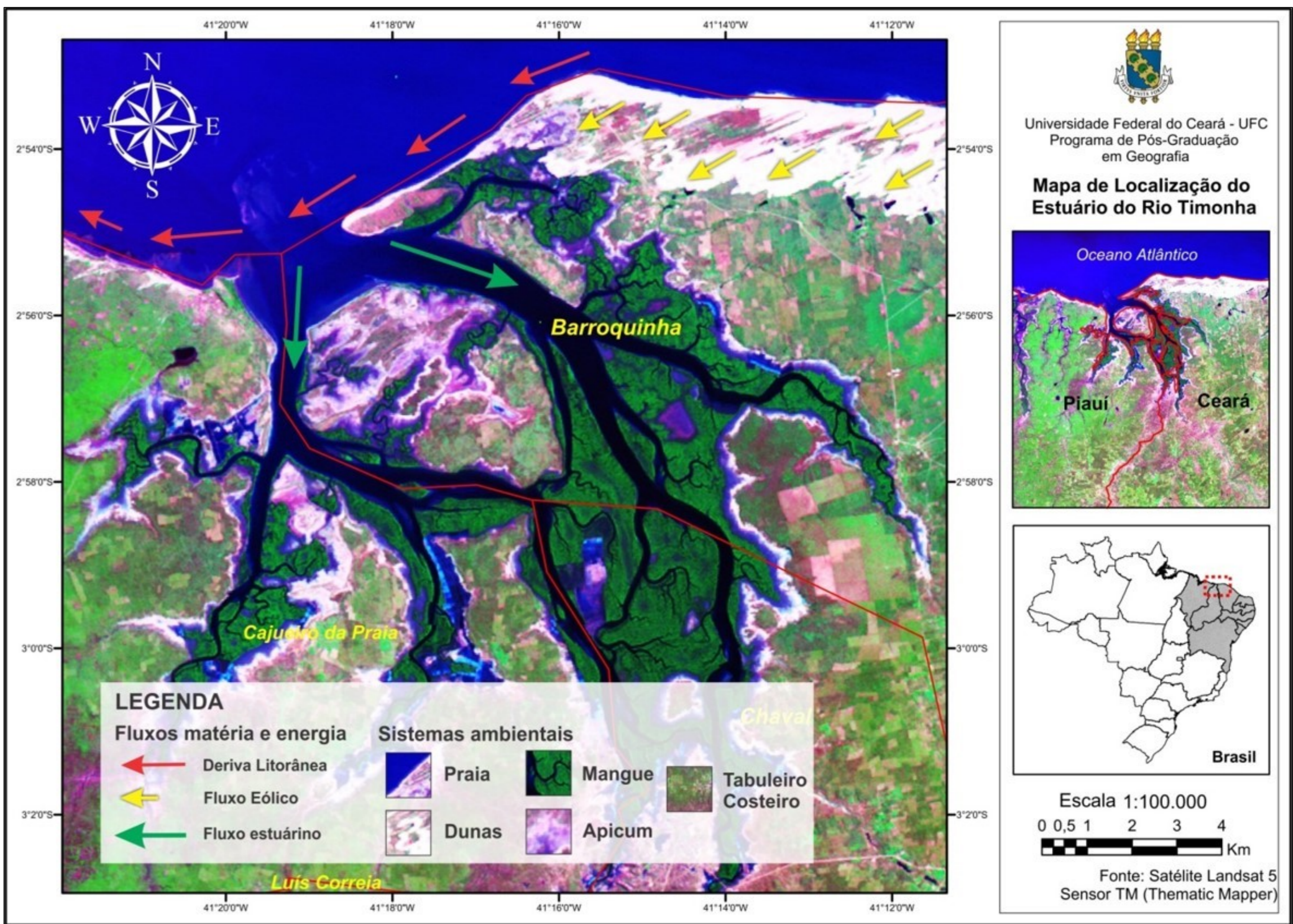


With the effort to understand the coastal environment, the beach of Bitupitá, in Barroquinha Ceará - Brazil, is placed as a theoretical-empirical object, aiming at verifying how changes occur in the natural frame, starting with the implementation of governance strategies, especially projects and structures for the modernization of the territory. With the technique of sedimentary testimonies are put interpretations that seek to understand remodeling of the natural features and how the components of nature are organized throughout the geocological history (natural dynamics). Socio-spatial processes of territorial formation and modernization by governance strategies introduce new characteristics to the natural environment, resulting in "new" features, with two regulatory dimensions, the dimensions of natural self-regulation and socio-spatial regulation. In turn, socio-spatial regulations tend to overlap with natural self-regulation, for example, with the construction of dams. With this study we seek to verify the effectiveness of an integrated, systemic approach based on a clear social context, where the process of modernization of the territory should be the guiding thread for the alteration of the flows of matter and energy on the coast.



Flow chart and synthesis table of the methodological path of the research



Social housing development towards the federal areas of environmental preservation



State highway (CE - 187) forming new features of the coastal landscape resulting from the modernization of the territory.

VECTORS	PRESSURES	IMPACTS	ANSWER	NOTES
Social housing development and urbanization programs	Conversion of natural areas into urbanized areas, value the land.	domestic sewage pollution, depletion of expansion mangrove areas, road construction in dune field bypass,	Effectiveness of the Plan Local Housing of Social Interest and othes strategies on governance	Exposes traditional families to situations of environmental vulnerability
Dam Itaúnas	Regularization of the water flow and the entrance of nutrients and sediments in the marine-coastal system	Changes in coastal sedimentary balance, sedimentation of the river mouth and the estuary. Saline intrusion. Changes coastal ecological communities by variation of the disposal of nutrients by the flow regularization	Organization of local river basin committees with community and university representatives.	High-risk consequences in semi-arid regions.

Integrated analysis of the relationship between social processes and natural processes. Source: LACERDA, 2018 (oral communication)